Beam Power Tube

NOVAR TYPE

For TV Horizontal-Deflection Amplifier Applications

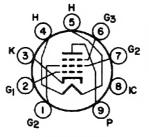
Electrical:

Heater Ratings and Characteristics:	
Voltage (AC or DC)	volts
Current at heater volts = 6.3 1.200	amp
Peak heater-cathode voltage:	
Heater negative with respect to cathode . 200 max.	
Heater positive with respect to cathode . 200ª max.	volts
Direct Interelectrode Capacitances (Approx.):b	
Grid No.1 to plate 0.26	pf
Input: G1 to (K,G3,G2,H) 15.0	pf
Output: P to (K,G3,G2,H) 6.5	pf

Mechanical:

Operating Position
Type of Cathode Coated Unipotential
Maximum Overall Length
Maximum Seated Length 2.800"
Diameter
Bulb
Base Large-Button Novar 9-Pin (JEDEC No.E9-76)
Basing Designation for BOTTOM VIEW

Pin 1-Grid No.2 Pin 2-Grid No.1 Pin 3 - Cathode Pin 4 - Heater Pin 5 - Heater



Pin 6-Grid No.3 Pin 7-Grid No.2 Pin 8 - Do Not Use Pin 9 - Plate

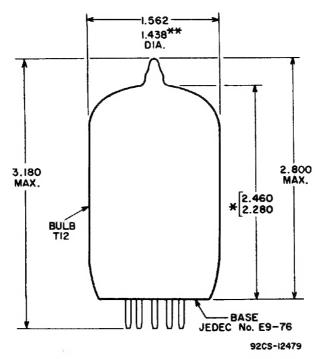
Characteristics, Class A Amplifier:

Triode Connection C

Plate Voltage			150	60	250	volts	
Grid No.3			_	Connected to Cathode			
				at socket			
Grid-No.2 Voltage			150	150	150	volts	
Grid-No.1 Voltage			-22.5	0	-22.5	volts	
Amplification Factor			4.4	_	_		
Plate Resistance (Approx.) .			-	_	15000	ohms	
Transconductance				_	7100	<i>µ</i> mhos	
Plate Current			_	390 d	70	ma	
Grid-No.2 Current					2.1	ma	
Grid-No.1 Voltage (Approx.)							
for plate ma = 1			_	-	-42	volts	

HORIZONTAL-DEFLECTION AMPLIFIER Maximum Ratings, Design-Maximum Values: For operation in a 525-line, 30-frame systeme 770 max. volts 6500 max. volts 1500 max. volts DC Grid-No.3 (Suppressor-Grid) Voltage . . . DC Grid-No.2 (Screen-Grid) Voltage . . . 70 max. volts 220 max. volts DC Grid-No.1 (Control-Grid) Voltage: Negative-bias value...... 55 max. volts Peak Negative-Pulse Grid-No.1 Voltage. . . 330 max. volts Cathode Current: 550 max. ma 175 max. ma 3.5 max. watts 17.5 max. watts Bulb Temperature (At hottest point $\circ \mathbb{C}$ 240 max. Maximum Circuit Values: Grid-No.1-Circuit Resistance: For grid-resistor-bias operation 1 max. megohm a The dc component must not exceed 100 volts. **b** Without external shield. $^{f c}$ With grid No.2 connected to plate at socket. d This value can be measured by a method involving a recurrent wave form such that the maximum ratings of the tube will not be exceeded. As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations", Federal Communications Commission. This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one horizontal scanning cycle. In a 525-line, 30-frame system, 15 per cent of one horizontal scanning cycle is 10 microseconds. ${\bf 9}$ A positive voltage may be applied to grid No.3 to reduce interference from "snivets" which may occur in television receivers. A typical value for this voltage is 30 volts.

An adequate bias resistor or other means is required to protect the tube in the absence of excitation.



- Measured from base seat to bulb-top line as determined by a ring gauge of $0.600\,^{\circ}$ inside diameter.
- ** The minimum applies in the zone starting 0.375 " from the base seat.

